

AVVISO DI SEMINARIO

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<https://us02web.zoom.us/j/87421556428?pwd=M3hsSzIVRTZzM1ArTDVNd0lHNHFldz09>



Metallic and Dielectric Nanostructures for Sensing and Light Extraction at the Nanoscale

Metallic and dielectric nanostructures offer the unique possibility to tailor the flow of light at the nanoscale. nanostructures, often characterized by remarkably simple geometries, are able to provide giant electromagnetic field focusing and strong emission enhancements when coupled to molecular light sources. this peculiarity paves the road to a wealth of intriguing possibilities, including single molecule sensors, sub-wavelength unidirectional light sources and highly efficient light emitting devices. during the seminar we shall show how these structures, ranging from metallic nanoparticles to magnetically active and dielectric multilayers, allow for the manipulation of the electromagnetic field at the nanometer scale, from the visible to the mid-infrared range. it will be finally shown how, in practice, it is possible to design and implement nanostructures such as plasmonic nanolenses, nanoantennas and superchiral sensors.